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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,088	11/07/2001	Haruhiko Yoshikawa	107355-00045	4710

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EXAMINER

ABDELNOUR, DENNIS J

ART UNIT PAPER NUMBER

3681

DATE MAILED: 02/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/986,088

Applicant(s)

YOSHIKAWA ET AL.

Examiner

Dennis J. Abdelnour

Art Unit

3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4 is/are rejected.
- 7) ☒ Claim(s) 2, 3 and 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

The following is a first action on the merits of application serial 09/986,088 filed on November 7, 2001. Claims 1-5 are pending.

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The disclosure is objected to because of the following informalities: on page 4, line 3, it appears the word "toque" should be --torque--; on page 7, line 19, it appears "Fig. 2" should be --Fig. 4--; on page 9, line 11, it appears "Fig. 2A" should be --Fig. 2--; on page 11, line 23, it appears "stating" should be --starting--; on page 16, line 20, it appears "rod 9s" should be --rod 9a--.

Appropriate correction is required.

Claim Objections

3. Claim 2 is objected to because of the following informalities: in line 6, it appears "valve" should be --value--. Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu et al. (USPN 6,071,211) in view of Streib (USPN 6,165,104).

Liu discloses a vehicle starting clutch control device for controlling a transmission torque capacity of a starting clutch 14 through a clutch actuator 30.

A first control means for controlling actuator 30 to engage clutch 14 in a state that the starting clutch completely transmits the output torque of the engine 12 during a power-on running with the accelerator depressed. At the end of a vehicle launch, clutch 14 is fully engaged to transmit full torque capacity.

A second control means for controlling actuator 30 to engage clutch 14 to transmit a torque capacity equal to a torque equal to an engine absorption torque corresponding to the engine speed at the time of power-off running without the accelerator pedal being depressed. It is "desirable that the engine generate at the flywheel, and the master clutch be slightly engaged to transfer, as small amount of torque sufficient to cause slow or creeping movement of the vehicle if the brakes are not applied." See col. 3, lines 61-67. Also, see col. 4, line 48 through col. 5, line 1.

A third control means controls actuator 30 to engage clutch 14 gradually to transmit full torque when an accelerator pedal is depressed during a power-off running state.

Liu does not disclose a delay means for delaying a start of control based on the third control means until a predetermined time after an accelerator pedal is depressed.

Streib discloses a similar system for controlling a clutch of a motor vehicle. In order to “optimize such systems for reducing the fluctuations in the drive train” (col. 1, lines 58-59), when a change of the desired motor torque is requested (i.e. a sharp increase in the depression of the accelerator pedal), the execution of the command for adjusting the motor torque is delayed.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Liu et al. by using a delay means to delay a start of the control method according to the third control means as taught by Streib in order to reduce fluctuations in the drive train.

Allowable Subject Matter

6. Claims 2, 3, and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Liu (USPN 5,980,428) Nov. 1999 – shows a similar vehicle launch automated master clutch control wherein an engine torque and clutch load are balanced in an idle state.

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Slicker et al. (USPN 5,630,773) May 1997 – a method for slip mode control of an automatic clutch 20. Figure 2 shows a clutch engagement curve wherein a maximum clutch torque is 1.5 times a maximum engine torque at full engagement in a first control means, an idle control and launch control are also disclosed.

Braun (USPN 5,097,724) Mar. 1992 – a similar start control system for an automated main clutch.

Slicker (USPN 5,293,316) Mar. 1994 – a similar automatic launch and creep control.

Slicker (USPN 5,275,267) Jan. 1994 – closed loop launch and creep control for an automatic clutch.

Patel et al. (USPN 6,364,813) Apr. 2002 – a method and apparatus for operating a clutch in an automated mechanical transmission.

Facsimile Transmission

8. Submission of your response by facsimile transmission is encouraged. Group 3600's facsimile number is **(703) 305-3597**. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our examining group's hands and will eliminate Post Office processing and delivery time as well as the PTO's mailroom processing and delivery time. For a complete list of correspondence not permitted by facsimile transmission, see MPEP 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile transmission. Responses requiring a fee which applicant is paying by check **should not be** submitting by facsimile transmission separately from the check.

Responses submitted by facsimile transmission should include a Certificate of Transmission (MPEP 512). The following is an example of the format the certification might take:

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(Date)

Typed or printed name of person signing this certificate:

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(Signature)

If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and MPEP 502.02). Please do not separately mail the original or another copy unless required by the Patent and Trademark Office. Submission of the original response or a follow-up copy of the response after your response has been transmitted by facsimile will only cause further unnecessary delays in the processing of your application; duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.


9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis J. Abdelnour whose telephone number is (703) 305-5309.


The examiner can normally be reached on Monday-Friday, 8:00-5:30, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on (703) 308-0830. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3597 for regular communications and (703) 305-3597 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-2168.

dja


February 22, 2003


CHARLES A. MARMOR
SUPERVISORY PATENT EXAMINER
ART UNIT 3681